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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/980,032	11/27/2001	Thomas Arvidsson	99002 UTAP	8077

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EXAMINER

LUGO, CARLOS

ART UNIT	PAPER NUMBER
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3677

DATE MAILED: 02/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/980,032

Applicant(s)

ARVIDSSON, THOMAS

Examiner

Carlos Lugo

Art Unit

3677

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 December 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. This Office Action is in response to applicant's amendment filed on December 15, 2003.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. **Claims 1 and 2 are rejected** under 35 U.S.C. 103(a) as being unpatentable over US Pat No 4,511,289 to Herron (Herron '289) in view of US Pat No 2,573,498 to Scott.

Regarding claim 1, Herron '289 discloses a tube formed rock bolt comprising an elongated tube (11), which in a cross section has a peripheral length, which exceeds the peripheral length of a circle having a diameter being equal to a largest transverse dimension of the tube. The bolt includes two end closures (13 and 14). One of the closures includes a passage (18) for pressurized the interior of the bolt in order to expand it.

However, Herron '289 fails to disclose that the tube has a varying material thickness in a peripheral direction when measure perpendicularly to the outer surface of the tube.

Scott teaches that is known in the art to have an elongated tube (10) having a varying material thickness in a peripheral direction when measure perpendicularly to the outer surface of the tube (Figure 4).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have a varying material thickness, as taught by Scott, into a device as described by Herron '289, in order to give more strength to the body and to give good contact force against the wall of the hole where the embodiment is placed when is expanded.

As to claim 2, the method of forming the device is not germane to the issue of patentability of the device itself. Therefore, this limitation has not been given patentable weight.

4. **Claims 1,2,4,5 and 7 are rejected** under 35 U.S.C. 103(a) as being unpatentable over GB Pat No 2,072,784 to Winston in view of US Pat No 2,573,498 to Scott.

Regarding claim 1, Winston discloses a tube formed rock bolt comprising an elongated tube (10), which in a cross section has a peripheral length, which exceeds the peripheral length of a circle having a diameter being equal to a largest transverse dimension of the tube. The bolt includes two end closures (20 and 24). One of the closures includes a passage (38) for pressurized the interior of the bolt in order to expand it.

However, Winston fails to disclose that the tube has a varying material thickness in a peripheral direction when measure perpendicularly to the outer surface of the tube.

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Scott teaches that is known in the art to have an elongated tube (10) having a varying material thickness in a peripheral direction when measure perpendicularly to the outer surface of the tube (Figure 4).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have a varying material thickness, as taught by Scott, into a device as described by Winston, in order to give more strength to the body and to give good contact force against the wall of the hole where the embodiment is placed when is expanded.

As to claim 2, the method of forming the device is not germane to the issue of patentability of the device itself. Therefore, this limitation has not been given patentable weight.

As to claims 4 and 7, Winston illustrates that the tube is symmetrical about two longitudinal sections, which are perpendicular relative to each other.

As to claim 5, Winston illustrates that the tube comprises a plurality of substantially triangularly formed stiff parts and intermediate U-shaped deformation parts (12).

5. **Claims 3 and 6 are rejected** under 35 U.S.C. 103(a) as being unpatentable over US Pat No 4,511,289 to Herron (Herron '289) in view of US Pat No 2,573,498 to Scott and further in view of US Pat No 5,183,358 to Foulkes et al (Foulkes).

Herron '289, as modified by Scott, fails to disclose that the bolt is made of an aluminum-based material.

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Foulkes teaches that is known in the art to have an expandable member (12) made of aluminum.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use aluminum, as taught by Foulkes, into a device as described by Herron '289, as modified by Scott, in order to use the characteristics of the material into the tube formed rock bolt.

6. **Claims 3,6,8 and 10-12 are rejected** under 35 U.S.C. 103(a) as being unpatentable over GB Pat No 2,072,784 to Winston in view of US Pat No 2,573,498 to Scott and further in view of US Pat No US Pat No 5,183,358 to Foulkes et al (Foulkes).

Regarding claims 3 and 6, Winston, as modified by Scott, fails to disclose that the bolt is made of an aluminum-based material.

Foulkes teaches that is known in the art to have an expandable member (12) made of aluminum.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use aluminum, as taught by Foulkes, into a device as described by Winston, as modified by Scott, in order to use the characteristics of the material into the tube formed rock bolt.

As to claims 8 and 9, Winston illustrates that the tube is symmetrical about two longitudinal sections, which are perpendicular relative to each other.

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As to claim 10-12, Winston illustrates that the tube comprises a plurality of substantially triangularly formed stiff parts and intermediate U-shaped deformation parts (12).

Response to Arguments

7. Applicant's arguments with respect to claims 1-12 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carlos Lugo whose telephone number is 703-305-9747. The examiner can normally be reached on 9-6pm EST.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Swann can be reached on 703-306-4115. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-5771.

Carlos Lugo
Examiner
Art Unit 3677

February 18, 2004.



J. J. SWANN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600